

## Scope



This chapter applies to **all** occupational exposure to benzene.



### Definition:

**Exposure** is the contact an employee has with benzene, whether or not protection is provided by respirators or other personal protective equipment (PPE). Exposure can occur through various routes of entry such as inhalation, ingestion, skin contact, or skin absorption.



### Exemptions:

This chapter does **not** apply to any of the following:

- Liquids, vapors, mixtures in containers or pipelines, and gas in natural gas processing plants when benzene content is 0.1% or less.
- Gasoline and other fuels containing benzene once they leave the final bulk wholesale facility and are being:
  - Transported
  - Sold
  - Distributed
  - Stored
  - Dispensed either:
    - Outdoors
    - or**
    - Indoors 4 hours or less a day.
  - Used as a fuel.
- Laboratories subject to the requirements in Hazardous chemicals in laboratories, WAC 296-62-400, the General Occupational Health Standards, Chapter 296-62 WAC
- Oil and gas drilling, production, and servicing operations
- Solid materials that contain only trace amounts of benzene
- Coke ovens.

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# Benzene

WAC 296-849-100

## Scope

### WAC 296-849-100 (Continued)

All requirements in this chapter will **not** apply to every workplace with an occupational exposure. The following will show you which requirements apply to your workplace.

**Step 1:** If any of your work tasks are listed in Table 1, follow Table 1.

- Go to Step 2a if you have additional work tasks or other exposures that aren't covered in Table 1.

**Table 1**  
**Requirements that Apply to Specific Tasks**

If employees do any of the following	Then the only requirements in this chapter that apply to those tasks are
Load and unload benzene at bulk storage facilities that use vapor control systems for all loading and unloading operations	<ul style="list-style-type: none"> <li>• The labeling requirement found in Preventive practices, WAC 296-849-11010</li> <li>• This requirement found in Training, WAC 296-849-11050:               <ul style="list-style-type: none"> <li>– Make sure training and information includes specific information on benzene for each hazard communication training topic. For the list of hazard communication training topics, go to the Safety and Health Core Rules, Chapter 296-800 WAC, and find Inform and train your employees about hazardous chemicals in your workplace, WAC 296-800-17030.</li> </ul> </li> </ul>
Perform tasks around sealed transport pipelines carrying gasoline, crude oil, or other liquids containing more than 0.1% benzene	
Work with, or around, sealed containers of liquids containing more than 0.1% benzene	<ul style="list-style-type: none"> <li>• Emergency requirements found in Medical evaluations, WAC 296-849-12030.</li> <li>• Requirements found in Medical records, WAC 296-849-12080.</li> </ul>
	<ul style="list-style-type: none"> <li>• Respirator requirements found in Respirators, WAC 296-849-13045.</li> </ul>

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**WAC 296-849-100 (Continued)**

**Step 2a:** Follow requirements in the basic rules sections, WAC 296-849-11010 through 296-849-11090, for tasks **not** listed in Table 1.

- This includes completing an exposure evaluation, as specified in Exposure evaluations, WAC 296-849-11030, to:
  - Obtain employee 15-minute and 8-hour exposure monitoring results of airborne benzene
  - and**
  - Determine if employee exposure monitoring results are above, at, or below these values:
    - 8-hour time-weighted average (TWA<sub>8</sub>) . . . . . 1 parts per million (ppm).
    - 15-minute short-term exposure limit (STEL) . . . . . 5 ppm.
    - 8-hour action level (AL) . . . . . 0.5 ppm.

**Step 2b:** Use employee exposure monitoring results from Step 2a and follow Table 2 to find out which additional sections of this chapter apply to your workplace.

**Table 2**  
**Section Application**

If employee exposure monitoring results are	Then continue to follow the basic rules, and these additional requirements
<ul style="list-style-type: none"> <li>• <b>Above</b> the TWA<sub>8</sub> or STEL</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure and medical monitoring, WAC 296-849-12005 through 296-849-12080</li> <li><b>and</b></li> <li>• Exposure control areas, WAC 296-849-13005 through 296-849-13045.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>At or below</b> the TWA<sub>8</sub> or STEL</li> <li><b>and</b></li> <li>• <b>At or above</b> AL</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure and medical monitoring, WAC 296-849-12005 through 296-849-12080.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Below</b> the AL and STEL</li> </ul>	<ul style="list-style-type: none"> <li>• No additional requirements apply.</li> </ul>